
Commentary

Traditional ecological knowledge: Impact on commercial health

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INTRODUCTION

Indigenous peoples have maintained and practiced their traditions, culture and ecological knowledge for tens of thousands of years. Commercialization of a small portion of indigenous knowledge of indigenous plants is currently receiving critical evaluation and validation. However, the vast traditional pharmacopeial knowledge of the evolutionary biology of Aboriginal peoples has been protected and hidden but in plain sight within the verbal teachings of traditional medicine leaders and just waiting for the evolution of western science and its language. Scientific knowledge, understanding and a separate language has evolved at a much faster pace than the simplistic common languages still used.

Similar to the language of mathematics, scientific language is only limited by the person using it, not by the language itself or its unlimited possibilities. Through our alliance with the scientific world and this new scientific ‘common’ language, we as Aboriginal People have the technologies and abilities to propagate plants for commercial use and applications.

There is a growing interest in the scientific community in recognition of traditional knowledge that could reintroduce and facilitate human health with biological insights, utilizing the tools and implementation of natural resource conservation and protection.

Aboriginal People through Misi-Atim Research and Development recognize the importance and need for advanced scientific research and development of biotechnology techniques that facilitate better understanding and utilization of traditional ecological knowledge through language, common interest and good business.

During international fora in the early 1980s, in 1987 and in 1992, the United Nations Conference on Environment and Development (UNCED) recognized and brought forward the scientific world’s awareness of traditional ecological knowledge.¹

In this commentary, we highlight the challenges inherent in the transfer of Aboriginal ecological knowledge. The Aboriginal ‘Science of Nature’ encompassed every aspect of traditional life; religion, politics and genetics, and is an education transferred over hundreds of generations. This transfer of traditional understanding is the basis of our challenge augment western science in the performance of modern technologies.

We highlight here the alliance between Aboriginal science and western science that could improve human health and give a further understanding through common language.

TRANSFER OF ABORIGINAL KNOWLEDGE TO FACILITATE WORLD HEALTH

Aboriginal people of North America are the only indigenous peoples of the American continent. Referred to by many names, and mostly not in their own languages, they are labeled as ‘Indians’

'Native American' 'Amerindian' 'Eskimo' 'Inuit' and 'Metis', and most recently 'First Nations'. Created from a matriarchal culture of women there has been a healthy and rich culture of indigenous peoples and populations across North America for thousands of years, each with complex root word languages.

The existing conditions of current Aboriginal peoples, with threats to their traditional lands, show that appropriate planning processes are critical. Expansion of commercialization following traditional practices requires political and administrative intervention across the continent to provide the support for the knowledge, abilities and willingness of the indigenous populations.

An appropriate practice approach necessitates an appreciation for the Aboriginal view of sustainability. At the core of such views is the importance of community life. Currently, 60 per cent of all crop species eaten worldwide were domesticated, bred and cultivated by Aboriginal peoples of North and South America.² This global impact of aboriginal contribution, without monetary or social gain to world health and economic growth of historic traditional foods, can be extended to the western scientific study of plants and can be combined with the complex traditional knowledge of medicinal plants.

Currently, there are growing concerns over the search for new plants with medicinal value for biotechnology, which is being conducted by pharmaceutical companies, energy suppliers and climate protectors in research institutions. There are also concerns about the role of molecular biology and genetic engineering, which can be used to modify plants and animals for biotechnological use. Therefore, to protect indigenous knowledge, indigenous people wish to proceed carefully when sharing their traditional knowledge. Aboriginal traditional knowledge has been recognized in environmental management regimes, and a subsequent resolution was passed in 2008 declaring:

...a moratorium on any commercialization of flora and fauna until First Nations have developed appropriate protection mechanisms for their traditional knowledge and have determined the scope of intellectual property rights.³

Currently, the alliance between science and aboriginal knowledge can be maximized to create a sustainable positive impact on the earth's health and hence human health with the least negative impact. Today's commercialization practices of the 'health' food and drug industries do not follow these practices, but instead follow the historic practice of 'corporate occupation' to the harm of our ever-damaged environment. These same attitudes and practices are seen in corporate Canada today, and have reached an unacceptable, non-sustainable level within our home nation with the resultant diseases and escalation and deterioration to health of plants, animals and people as reported by the scientific and medical communities.

Indigenous companies are proposing Aboriginal traditional knowledge and practices combined with precise scientific biotechnologies through recognized and accredited universities to investigate, document, evaluate and create an environment for controlled commercial purposes. These combined techniques and knowledge are viable and proven innovative restorative technologies and are very applicable to species restoration and species diversity.

Our research and development in conjunction with our partnered universities and scientists will study those species with genomic characters in regard to DNA-based methods to develop a mapping process for the identification and protection of indigenous foods and medicinal plants that are at recognized highest risk. This scientific model is the first aboriginal company that is aiming to establish a link between indigenous knowledge and health commercialization.

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